



**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI**  
**DEPARTMENT OF COMPUTER APPLICATIONS**

<b>COURSE PLAN – PART I</b>			
<b>Name of the programme and specialization</b>	M.Sc. Computer Science		
<b>Course Title</b>	OPERATING SYSTEMS LAB –UNIX & SHELL PROGRAMMING		
<b>Course Code</b>	CAS 753	<b>No. of Credits</b>	2
<b>Course Code of Pre-requisite subject(s)</b>	-		
<b>Session</b>	JUNE 2020	<b>Section</b>	-
<b>Name of Faculty</b>	Dr. S. Sangeetha	<b>Department</b>	Computer Applications
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<b>Name of Course Coordinator(s)</b>	Dr. Michael Arock		
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<b>Course Type</b> (please tick appropriately)	<input checked="" type="checkbox"/> <b>Core course</b> <input type="checkbox"/> <b>Elective course</b>		
<b>Syllabus (approved in BoS)</b>			
Exercises for learning basic features of UNIX and to solve problems using shell programming			
<b>COURSE OBJECTIVE</b>			
<ul style="list-style-type: none"> <li>• Understand the design and structure of the UNIX, basic UNIX Utilities and develop shell programs for solving the problems</li> </ul>			
<b>MAPPING OF COs with POs</b>			
<b>Course Outcomes</b>	<b>Programme Outcomes (PO)</b> (Enter Numbers only)		
1. Work on the concepts, design, and structure of the UNIX operating system.	1,2,3		
2. Use basic UNIX Utilities	1,2,3,5		
3. Work on UNIX shell programming.	4,5		

<b>COURSE PLAN – PART II</b>				
<b>COURSE OVERVIEW</b>				
Operating systems lab helps the students to understand the way in which the commands in UNIX are developed using system calls and making use of the commands to solve problems while writing shell scripts. In addition to that, it also helps the students to understand the principles in the design and implementation of operating systems concepts				
<b>COURSE TEACHING AND LEARNING ACTIVITIES</b>				
<b>Week</b>	<b>Topic</b>			
1	Basic UNIX commands			
2	Writing UNIX shell scripts			
3	Writing UNIX shell scripts			
4	Writing UNIX shell scripts			
5	Writing UNIX shell scripts			
6	Writing UNIX shell scripts			
7	Developing commands in C using system Calls			
8	Simulating Process Scheduling			
9	Synchronization among processes in IPC using multithreading			
10	Simulation of Logical to physical Address translation in various Memory management techniques			
11	Simulating page replacement Algorithm			
12	Simulating disk scheduling Algorithm			
<b>COURSE ASSESSMENT METHODS (shall range from 4 to 6)</b>				
<b>S.No.</b>	<b>Mode of Assessment</b>	<b>Week/Date</b>	<b>Duration</b>	<b>% Weightage</b>
1.	Code Evaluation-1	Week 6	3 hours	25
2.	Code Evaluation-2	Week 12	3 hours	25
3.	Assignment	Week 7	2 weeks	20
CPA	Compensation Assessment	At the end of the course	1 Hr	20
4	Final Assessment	At the end of the course	3 Hrs	30
<b>COURSE EXIT SURVEY</b>				
<ul style="list-style-type: none"> <li>• The students through the class representative may give their feedback at any time to the course faculty which will be duly addressed.</li> <li>• The students may also give their feedback during Class Committee meeting.</li> </ul>				
<b>COURSE POLICY (including compensation assessment to be specified)</b>				
<b>ATTENDANCE POLICY (A uniform attendance policy as specified below shall be followed)</b> As per Institute policy				

**ACADEMIC DISHONESTY & PLAGIARISM**


- Possessing a mobile phone, carrying bits of paper, talking to other students, copying from others during an assessment will be treated as punishable dishonesty.
- Zero mark to be awarded for the offenders. For copying from another student, both students get the same penalty of zero mark.
- The departmental disciplinary committee including the course faculty member, PAC chairperson and the HoD, as members shall verify the facts of the malpractice and award the punishment if the student is found guilty. The report shall be submitted to the Academic office.
- The above policy against academic dishonesty shall be applicable for all the programmes.
- The students are expected to come out with their original solution for problems given as assignment, and tests/examinations.

**ADDITIONAL INFORMATION, IF ANY**

**FOR APPROVAL**

Course Faculty 

CC- Chairperson 

HOD 

## **Guidelines**

- a) The number of assessments for any theory course shall range from 4 to 6.
- b) Every theory course shall have a final assessment on the entire syllabus with at least 30% weightage.
- c) One compensation assessment for absentees in assessments (other than final assessment) is mandatory. Only genuine cases of absence shall be considered.
- d) The passing minimum shall be as per the regulations.

<b>B.Tech. Admitted in</b>				<b>P.G.</b>
<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	
35% or (Class average/2) whichever is greater.		(Peak/3) or (Class Average/2) whichever is lower		40%

- e) Attendance policy and the policy on academic dishonesty & plagiarism by students are uniform for all the courses.
- f) Absolute grading policy shall be incorporated if the number of students per course is less than 10.
- g) Necessary care shall be taken to ensure that the course plan is reasonable and is objective.